Solar Business Development

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Solar-Related Industry Associations

Industry associations, networks and consortia exist for most industries and bring together industry-related businesses and support-service providers to address common interests. Many of these groups provide valuable technical resources that support industry-wide standards and best practices. Some of these groups also have models and examples of public policies, financing tools and business support incentives that local governments can consider as a way to encourage the formation and growth of wind-related businesses in their communities. The following are examples of several Solar-Related groups have formed which can support the formation, growth and diversification of local wind-related businesses.

American Solar Energy Society (ASES) - the nations leading association of solar professionals and advocates. Founded in 1954, ASES is dedicated to inspiring an era of energy innovation and speeding the transition toward a sustainable energy economy. The nonprofit advances education, research and policy.

Michigan Economic Development Corporation, Solar Energy - With over 200 businesses involved in the solar-energy industry, Michigan has alternative energy resources, infrastructure and supply chain in place that makes Michigan one of the best places in the world for the solar energy manufacturing industry to locate and create jobs. MEDC provides a host of resources to support solar-related urban and rural business formation, growth and diversification.

Solar Energy Industries Association (SEIA) - Established in 1974, the Solar Energy Industries Association (SEIA) is the national trade association of the U.S. solar energy industry. Through advocacy and education, SEIA is working to build a strong solar industry to power America. As the voice of the industry, SEIA works with its 1,000 member companies to make solar a mainstream and significant energy source by expanding markets, removing market barriers, strengthening the industry and educating the public on the benefits of solar energy. SEIA is a 501 c (6) non-profit association.

GLBR Solar Advantage

Great Lakes Bay Region Solar Advantage - The Great Lakes Bay Region in Michigan is a hub of research, product development, and manufacturing for the chemical, silicon, advanced materials, and nanotechnology industries. Michigan's Great Lakes Bay Region is composed of the Bay, Midland, and Saginaw Counties, and its Solar Advantage is a collaboration between three cooperating economic development programs. The purpose of Solar Advantage is to foster the formation, growth, diversification and attraction of urban and rural solar-energy related business ventures.

Solar Tech

California based SolarTech provides innovative expertise and accelerates local solar markets. SolarTech removes barriers, ensuring a long term, sustainable solar industry. The organization works to bring together industry and the public sector, driving the growth of solar energy at the state and local level. SolarTech focuses on providing best practices and implementation standards that make mass adoption of solar a reality.

Solar Financing Tools

Michigan Business Development and Michigan Community Revitalization Programs - The Michigan Business Development and Michigan Community Revitalization Programs replace the state's previous MEGA, Brownfield and Historic tax credit programs that were features of the Michigan Business Tax; they will be eliminated under business tax restructuring legislation approved and signed into law by Governor Rick Snyder in May. The Michigan Business Development Program will provide grants, loans or other economic assistance of up to $10 million to businesses that are creating qualified new jobs and making new investments in Michigan.

The Michigan Strategic Fund (MSF) will consider a number of factors in making these awards, including out-of-state competition, private investment in the project, business diversification opportunities, near-term job creation, wage and benefit levels of the new jobs, and net-positive return to the state. Business retention and retail projects are not eligible for consideration of these incentives. The Michigan Community Revitalization Program will provide grants, loans, or other economic assistance of up to $10 million to projects that will revitalize regional urban areas, act as a catalyst for additional investment in a community, reuse vacant or historic buildings and promote mixed use and sustainable development. The programs will take effect on October 1, 2011.

National Renewable Energy Laboratory (NREL), In My BackYard Solar PV Financial Analysis Tool. The In My Backyard (IMBY) tool estimates the electricity you can produce with a solar photovoltaic (PV) array or wind turbine at your home or business. Homeowners, businesses, and researchers use IMBY to develop quick estimates of renewable energy production at locations throughout the continental United States, Hawaii, and northern Mexico. IMBY uses a map-based interface to allow you to choose the exact location of your PV array or wind turbine. Based on your location, system size, and other variables, IMBY estimates the electricity production you can expect from your system.

Consumers Energy Experimental Advanced Renewable Program (EARP) - On July 26, 2011, the Michigan Public Service Commission approved an expansion of the EARP. Beginning in September 2011, customers that generate electricity using solar photovoltaic systems and want to sell it back to the utility for a set price will be able to do so under the following program rules. For a complete description of the program and regulations, please visit the Consumers Energy EARP site. For additional information or questions regarding this new program, please contact Keith Troyer, EARP Coordinator, Consumers Energy, solar@cmsenergy.com.

Google Invests $280 Million to spur Home Solar

Michigan Saves

Ann Arbor PACE Program - In December of 2010, Michigan passed legislation that authorizes local governments to create Property Assessed Clean Energy (PACE) districts to finance efficiency improvements and renewable energy systems to commercial and industrial properties through voluntary special assessments. Building owners benefit by saving energy and the community benefits from the economic stimulus, improved property valuation, increased employment and reduction of greenhouse gas emissions. The City of Ann Arbor is currently developing a PACE Program, which is planned to launch in the 4th Quarter of 2011

Growing Industries - In addition to solar zoning, communities may also wish to foster the formation, growth, diversification and attraction of urban and rural solar energy-related business ventures as a combined community/economic reinvention strategy. Solar Energy-related economic development is a strategy that focuses business incentives and business support services to accelerate the creation, retention, growth, diversification and/or attraction of entrepreneurial solar energy-related businesses that combine innovation with intent and capacity to grow. Such firms typically focus on the robust research, development and commercialization of breakthrough technology innovations that provide them with a compelling competitive advantage in their growth-oriented marketplace.

Funding Solar Innovation

A recent survey of Economic Development Leaders in 48 states conducted by the International Economic Development Council found that, "Investment in Research and Development is seen as a critical area for attention for state economic development leaders who are looking to stimulate renewable energy sectors. See Powering Up: State Assets & Barriers to Renewable Energy Growth, 2011. Michigan has benefitted historically from the fact that 40% to 60% of all economic growth is from technological innovation. Many economists are increasingly appreciating an emerging field of study called "Innovation Economics" which poses that innovation - not capital accumulation - drives economic growth.

While labor continues to be a significant factor in solar product sales, accelerating technological innovation is increasingly viewed as the primary way to drive down the installed cost per watt and attain market leadership. The need for accelerated innovation is spurring new models for collaborative research and development that can truncate the invention process. For example, in the 1970's, the lion's share of R&D, 100 Award-winning U.S. innovations came from corporations acting on their own behalf (with Michigan leading the nation in Corporate R&D investments). Over the past two decades, however, most of these award-winning innovations have started to come from inter-organizational partnerships involving business (large, medium and small) and government (including federal labs and universities). In the U.S., currently, roughly 2/3 of award-winning U.S. innovations now involve some kind of inter-organizational collaboration and roughly 75 % of U.S. Patents come from federally funded research.
As the primary generators of most innovations and related prosperity, small businesses play a vitally important role in the innovation landscape. Towards that end, the federal Small Business Research Program (SBIR) and Small Business Technology Transfer Program (STTR) provide multi-millions in federal research grants to small businesses to fund commercially-viable projects. Several of the SBIR/STTR funding departments and agencies fund R&D grants that are directly related to wind energy applications:

Environmental Protection Agency
National Science Foundation
U.S. Department of Agriculture
U.S. Department of Defense
U.S. Department of Energy

SBIR Commercialization

The National Science Foundation (NSF) Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) program is one of the leading programs in the nation for funding commercially viable R&D projects. The NSF SBIR/STTR program provides individual R&D grants to small businesses in the range of $100,000 (Phase I) to $1,000,000 (Phase II). Based on the success of NSF funded companies, NSF has found that the most successful SBIR/STTR projects have the following characteristics:

Close collaboration with a market leader
Strong focus on a narrow technology and market
Strong patent position
Long term dedicated technologists
Key company officer is long term project champion
Commercialization of sound science is used as a smart business strategy

Grant proposals with strong collaborations and financial backing from industry leaders receive more credit in the review process

NSF, along with the U.S. Department's of Agriculture, Defense and Energy regularly provide solar- related SBIR/STTR grants to small businesses interested in developing innovations that effectively lower the installed cost of solar photovoltaics. The Michigan Economic Development Corporation has a number of programs - including the Michigan Energy Office - to assist in the formation and growth of solar-related ventures in Michigan. Towards that end, the following type of Michigan organizations could potentially benefit from solar-related SBIR/STTR collaborations:

Senior Technical staff from OEM's, Total System, Sub System, Component and Raw Material Suppliers and/or startups, with 500 employees or less "small business", seeking research and develop funding for proprietary EE/RE -related innovations, products and processes that have high commercial potential.

Large & Medium-Sized Businesses and/or Third-Party Investors seeking to collaborate with the small SBIR/STTR businesses to commercialize their successful R&D results.
University/Institute Faculty and Staff seeking consulting opportunities with the small businesses on their SBIR/STTR grants.

Community and Economic Developers interested in fostering innovative entrepreneurship as an economic reinvention strategy.

Business Support Service Providers (i.e., Patent and Legal, Accounting, Marketing and business development specialists) with demonstrated expertise in areas such as Technology Transfer, Government Data Rights, Federal Acquisition Regulations, export, cutting-edge venture formation and growth and strategic alliances.